

FIG. 1A

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1
CAT CAT AAT GGA ACA AAT GGT ACT ATG ATG CAA TAT TTC GAA TGG TAT TTG CCA AAT GAC
H H N G T N G T M H Q Y F E W Y L P N D

21
GGG AAT CAT TGG AAC AGG TTG AGG GAT GAC GCA GCT AAC TTA AAG AGT AAA GGG ATA ACA
G N H W N R L R D D A A N L K S K G I T

41
GCT GTA TGG ATC CCA CCT GCA TGG AAG GGG ACT TCC CAG AAT GAT GTA GGT TAT GGA GCC
A V W I P P A W K G T S Q N D V G Y G A

61
TAT GAT TTA TAT GAT CTT GGA GAG TTT AAC CAG AAG GGG ACG GTT CGT ACA AAA TAT GGA
Y D L Y D L G E F N Q K G T V R T K Y G

81
ACA CGC AAC CAG CTA CAG GCT GCG GTG ACC TCT TTA AAA AAT AAC GGC ATT CAG GTA TAT
T R N Q L Q A A V T S L K N N G I Q V Y

FIG.1B

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101

GGT GAT GTC GTC ATG AAT CAT AAA GGT GGA GCA GAT GGT ACC GAA ATT GTA AAT GCG GTA
G D V V M N H K G G A D G T E I V N A V

121

GAA GTC AAT CGG AGC AAC CGA AAC CAG GAA ACC TCA GGA GAG TAT GCA ATA GAA GCG TGG
E V N R S N R N Q E T S G E Y A I E A W

141

ACA AAG TTT GAT TTT CCT GGA AGA GGA AAT AAC CAT TCC AGC TTT AAG TGG CGC TGG TAT
T K F D F P G R G N N H S S F K W R N Y

161

CAT TTT GAT GGG ACA GAT TGG GAT CAG TCA CGC CAG CTT CAA AAC AAA ATA TAT AAA TTC
H F D D G T D W D Q S R Q L Q N K I Y K F

181

AGG GGA ACA GGC AAG GCC TGG GAC TGG GAA GTC GAT ACA GAG AAT GGC AAC TAT GAC TAT
R G T C K A W D W E V D T E N G N Y D Y

FIG.1C

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201

CTT ATG TAT GCA GAC GTG GAT ATG GAT CAC CCA GAA GTA ATA CAT GAA CTT AGA AAC TGG
L M Y A D V D M D H P E V I H E L R N W

221

GGA GTG TGG TAT ACC AAT ACA CTG AAC CTT GAT GGA TTT ACA ATA GAT GCA GTG AAA CAT
G V W Y T N T L N L D C F R I D A V K H

241

ATA AAA TAT AGC TTT ACC AGA GAT TGG CTT ACA CAT GTG CGT AAC ACC ACA GGT AAA CCA
I K Y S F T R D W L T H V R N T T G K P

261

ATG TTT GCA GTG GCT GAG TTT TGG AAA AAT GAC CTT GGT GCA ATT GAA AAC TAT TTG AAT
M F A V A A E F W K N D L G A I E N Y L N

281

AAA ACA AGT TGG AAT CAC TCG GTG TTT GAT GTT CCT CTC CAC TAT AAT TTG TAC AAT GCA
K T S W N H S V F D V P L H Y N L Y N A

FIG.1D

301

TCT AAT AGC GGT GGT TAT TAT GAT ATG ACA AAT ATT TTA AAT GGT TCT GTG CTG CAA AAA
S N S G G Y Y D M R N I L N G S V V Q K

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321

CAT CCA ACA CAT GCC GTT ACT TTT GTT GAT AAC CAT GAT TCT CAG CCC GGG GAA GCA TTG
H P T H A V T F V D N H D S Q P G E A L

341

GAA TCC TTT GTT CAA CAA TCG TTT AAA CCA CTT GCA TAT GCA TTG GTT CTG ACA AGG GAA
E S F V Q Q W F K P L A Y A A L V L T R E

361

CAA GGT TAT CCT TCC GTA TTT TAT GGG GAT TAC TAC GGT ATC CCA ACC CAT GGT GTT CCG
Q G Y P S V F Y G D Y Y G I P T H G V P

381

GCT ATG AAA TCT AAA ATA GAC CCT CTT CTG CAG GCA CGT CAA ACT TTT GCC TAT GGT ACC
A M K S K I D P L L Q A A R Q T F A Y G T

FIG.1E

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401

CAG CAT GAT TAC TTT GAT CAT CAT GAT ATT ATC GGT TGG ACA AGA GAG GGA AAT AGC TCC
Q H D Y F D H H D I I G W T R E G N S S

421

CAT CCA AAT TCA GGC CTT GCC ACC ATT ATG TCA GAT GGT CCA GGT GGT AAC AAA TCG ATG
H P N S G L A T I M S D G P G G N K W M

441

TAT GTG GGG AAA AAT AAA GCG GGA CAA GTT TGG AGA GAT ATT ACC GGA AAT AGG ACA GGC
Y V G K N K A G Q V W R D I T G N R T G

261

ACC GTC ACA ATT AAT GCA GAC GGA TGG GGT AAT TTC TCT GTT AAT GGA GGG TCC GTT TCG
T V T I N A D G W C N F S V N G G S V S

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GTT TGG GTG AAG CAA TAA
V W V K Q .

FIG. 2A

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	10	20	30	40	50	60	
1	HHNGTNGTMQYFEWYLPNDGNHWNRLRDDAANLKSKGITAVWIPPAWKGTSDNDVG YGA						60
3	-AAPFNGTMQYFEWYLPDDGTLWTKVANEANLSSLGITALLPRAKGTSDVG YGV						59
2	HHNGTNGTMQYFEWHL PNDGNHWNRLRDDASNLRNGITAIWI PPAWKGTSDNDVG YGA						60
4	HHNGTNGTMQYFEWYLPNDGNHWNRLNSDASNLSKSGITAVWI PPAWKGASQNDVG YGA						60

	70	80	90	100	110	120	
1	YDL YDLGFEFNQKGTVRTKYGTRNQLQA AVTSLKNNGIQVYGDVVMNHKGGADGTEI VNAV						120
3	YDL YDLGFEFNQKGTVRTKYGTKAQYLQAIQA AHAGMQVYADVFDHKG GADGTEVDAV						119
2	YDL YDLGFEFNQKGTVRTKYGTRSQLESAIHALKNNGVQVYGDVVMNHKGGADATE NVLAV						120
4	YDL YDLGFEFNQKGTVRTKYGTRSQLA AVTSLKNNGIQVYGDVVMNHKGGADATE MVRAY						120

	130	140	150	160	170	180	
1	EVNRSNRNQETSGEYAI EA WTKFDFEGRGNHSSFKWRWYHFDGTDWDQSRQLQNKI YKF						180
3	EVNPSDRNQEISGTYQIQAWTKFDFEGRGN TYSSFKWRWYHFDGVDWDES RKL S-RIYKF						178
2	EVNPNRNQOEISGDTIEAWTKFDFEGRGN TYSDFKWRWYHFDGVDWDQSRQFQNR IYKF						180
4	EVNPNNRNQEV TGEY TIEAWTRFDFEGRGN THSSFKWRWYHFDGVDWDQSRRLN NR IYKF						180

FIG. 2B

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1	RGTGKAWDWEVD	TENGNYDYL	MYADVDM	DHPEVI	HEL	RNWGV	TNTL	NLDG	FRIDAVKH	240
3	RGIGKAWDWEVD	TENGNYDYLM	YADLDM	DHPEV	TEL	KNWGK	WYNT	TNIDG	FRIDAVKH	238
2	RGDGKAWDWEVD	SENGNYDYLM	YADVDM	DHPEV	NEL	RRWGE	WYNT	TLNLDG	FRIDAVKH	240
4	RGHGKAWDWEVD	TENGNYDYLM	YADIDM	DHPEV	NEL	RNWGV	WYNT	TLGLDG	FRIDAVKH	240

1	IKYSFTRDWL	THVRNTTG	KPMFA	VAEF	WKNDL	GAIEN	YL	NKTS	WNHSA	EDV	PLHYN	LNA	300	
3	IKESFEPDWL	SYRSQTG	KPLE	FTVGE	YNSYD	INKL	HNYIT	KTDG	TMSL	EDAP	LHNK	FYTA	298	
2	IKYSFTRDWL	THVRNATG	KE	MEFA	VAEF	WKNDL	GAIEN	YL	NKTN	WNHSA	VEDV	PLHYN	LNA	300
4	IKYSFTRDW	INHVR	SATG	KMEFA	VAEF	WKNDL	GAIEN	YL	QKT	NWNHSA	VEDV	PLHYN	LNA	300

1	SNSGGY	YDMR	NI	L	NGSV	QK	PT	HA	VT	FD	NH	DSQ	P	GE	ALES	FV	QW	EK	PL	AYAL	VT	TRI	360							
3	SKSGA	FDMR	IT	MT	NT	L	M	KDQ	P	T	LA	VT	FD	NH	DTE	P	G	ALQ	S	W	D	P	W	EK	PL	AYAL	IT	TRQ	358	
2	SNSGG	NYDM	AK	L	NG	T	V	QK	P	M	HA	VT	FD	NH	DSQ	P	G	ES	LES	FV	QW	E	K	PL	AYAL	IT	TRQ	360		
4	SKSGG	NYDM	R	NI	E	NG	T	V	QK	P	H	SH	AV	T	FD	NH	DSQ	P	E	ALES	FV	E	W	E	K	PL	AYAL	IT	TRQ	360

FIG. 2C

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	370	380	390	400	410	420	
1	QGYPSVFEYGDYGGIPTHGVPAMKSKIDPLLQARQTFAYGTQHDYFDHDIIGWTRREGNSS						420
3	EGYPCVFEYGDYGGIPQYNIPSLKSKIDPLLARQYAYGTQHDYLDHSDIIGWTRREGTE						418
2	QGYPSVFEYGDYGGIPTHSVPAKAKIDPILLEARQNEAYGTQHDYFDHNIIGWTRREGNTT						420
4	QGYPSVFEYGDYGGIPTHGVPAMRSKIDPILLEARQKYAYGKQNDYLDHNIIGWTRREGNTA						420

	430	440	450	460	470	480	
1	HPNSGLATIMSDGPGGNKMYYVCXNKACQVWRDITGNRTGTVTINADGWGNFVSNGGSVS						480
3	KPGSGLAALITDGPBGSKMYYVGKQHAGKVEYDLTGNRSDTVTINSDGWGEFKVNGGSVS						478
2	HPNSGLATIMSDGPGGEKMYVGQNKAGQVWHDITGNKPGTVTINADGWANFVSNGGSVS						480
4	HPNSGLATIMSDGAGGSKMFFVGRNKAGQVWSDITGNRTGTVTINADGWGNFVSNGGSVS						480

	490	500	510	520	530	540	
1	VWVKQ						485
3	VWVPRKTTVSTIARPIITRPWTGEFVRWTEPRLVAW						514
2	IWVKR						485
4	IWVWK						485

FIG. 3

